

ABSTRACT OF THE DISCLOSURE

A wireless base station (15) for transmitting spread spectrum signals is disclosed. The base station (15) includes a peak compression unit (16), which is comprised of a sequence of peak detection and cancellation circuits (32). Each peak detection and cancellation circuit (32) detects and compresses identified peaks. The further stages of peak detection and cancellation circuits (32) serve to reduce peaks that, as a result of "peak regrowth", are caused at sample points near to a reduced peak point. According to one disclosed embodiment, a peak sample point is not qualified for compression unless a number of sample points subsequent to the peak all have lower magnitude than that of the peak. The cancellation pulses applied by the peak detection and cancellation circuits (32) may be generated by a finite impulse response (FIR) filter pulse, or alternatively by a minimum phase infinite impulse response (IIR) pulse. The peak compression unit (16) identifies and compresses statistical peaks in the digital symbol amplitude, so that the dynamic range requirements of the power amplifier (24) in the base station (15) may be relaxed.